Annex 1 to the Procedure (as amended by the Resolution of the Cabinet of Ministers of Ukraine dated ___ _____ 202_ No. ____)

INFORMATION to be submitted to create an account in ICS Cogeneration

Role in ICS Cogeneration _____

(manufacturer (user)/STS/NEURC/TSO/DSO)

1. Full or abbreviated (if any) name of the legal entity/surname, first name, patronymic (if any) of the individual entrepreneur and official e-mail address.

2. Name of the country of registration.

3. Code according to the EDRPOU/registration number of the taxpayer's registration card (except for an individual who, due to his/her religious beliefs, refuses to accept the registration number of the taxpayer's registration card and has reported it to the relevant supervisory authority and has a mark in the passport.

4. Type of activity according to the Classification of Economic Activities.

5. Location of the legal entity/location (address of residence) of the individual entrepreneur (full postal address), phone number, e-mail address, address of the official page on the Internet (if any).

6. Information about the head of the ICS Cogeneration user (job title, surname, first name, patronymic (if any).

7. EIC code of the electricity market entity (if any).

8. Number and date of the resolution of the National Energy and Utilities Regulatory Commission on the issuance of a license for the right to conduct economic activities in "Production of thermal energy at thermal power plants, thermal power plants, nuclear power plants and cogeneration plants" and "Production of electricity" (if necessary).

Annex 2 to the Procedure (as amended by the Resolution of the Cabinet of Ministers of Ukraine dated ___ _____ 202_ No. ____)

REQUIREMENTS

to ICS Cogeneration, e-cabinet, monitoring and integration

1. Architecture: government platform (e.g. Diia.Engine) or equivalent compatible with Trembita; modules: applicant's office; back office; QES module; Register module; monitoring module; open data/API module.
2. Identification/signature: QES/Diia. Sign; support for signing a package of documents and individual files; checking the validity of QES.
3. Integrations (minimum): USR; DPS; NEURC; market operator; SWAps/DSO; USESSB; register of energy certificates; (if possible) — SCADA nodes of manufacturers through secure channels with data aggregation.
4. Monitoring data: structured fields; units of measurement; range control; auto-calculation of PEE (Primary Energy Saving) per month/year; export to open formats.
5. Verification: cross-reconciliation with the data of the TSO/DSO/market operator (commercial accounting); control of anomalies; risk flags; queues for audit.
6. Security: roles and rights; Logging; Reservation; compliance with information security standards; depersonalization when publishing open data.
7. Availability: 24/7; fault tolerance; technical support; Reference materials.

Annex 3 to the Procedure (as amended by the Resolution of the Cabinet of Ministers of Ukraine dated ___ _____ 202_ No. ____)

STRUCTURE

set of open data and public version of the electronic register of qualified cogeneration plants

Required entry fields:

1. unique record ID;
2. number of the Certificate (format KGU-XXXXXX-YYYY);
3. date of issue and validity period;
4. status (current/suspended/canceled/archived);
5. name of the owner (for sole proprietors — full name/initials with consent);
6. EDRPOU/RNOKPP code (taking into account data protection requirements);
7. installation address;
8. type/name of equipment;
9. installed electrical capacity (MW)
10. installed heat capacity (Gcal/h);
11. type of fuel/energy;
12. primary energy saving indicator (%) — design and/or last actual;
13. annual volumes of electricity production (for the last reporting period);
14. annual volumes of heat energy production (for the last reporting period);
15. date/time of the last update of the record.

Publication formats: CSV/JSON (required), XLSX (if necessary). Update frequency: at least quarterly; preferably in close to real-time mode. Open API: REST/JSON to get a list of records and drill down by ID.

Annex 4 to the Procedure (as amended by the Resolution of the Cabinet of Ministers of Ukraine dated ___ _____ 202_ No. ____)

TABLE

registration card of the cogeneration plant (composition and structure of parameters)

Group	**Field/Parameter**	**Description / Units**	**Data Type**	**Necessarily**	**Source/Verification**
Identification	KSU ID	Format KGU-XXXXXX (assigned to ICS, unchanged)	Row	Yes	ICS generation
Identification	Recording Status	Registered / Qualified / Suspended / Cancelled / Discontinued	List	Yes	X
Identification	Registration date	DD.MM.YYYY	Date	Yes	X
Owner/User	Name of the subject	Legal entity / sole proprietorship	Row	Yes	USR (auto-pull-up)
Owner/User	EDRPOU / RNOKPP code	Subject ID	Row	Yes	USR / STS
Contacts	Responsible person	NAME	Row	Yes	Applicant
Contacts	Email / Phone	For communication and notifications	Row	Yes	Applicant
Location	Installation addresses	Oblast, community, settlement, street, No	Row	Yes	Applicant/EDSSB/KATOTTG
Location	Geocoordinates	WGS84, decimal degrees	Number / Number	Optional	Applicant
Joining	System Operator	GSP / DSO (name)	List	Yes	ICS Handbook
Joining	Attachment Point (EIC)	EIC Code / VP Description	Row	Optional	Accession agreement
Technical	Installation Type	Gas piston / Gas turbine / Steam turbine / CCGT / ORC / MicroCHP / Other	List	Yes	Applicant

Technical	Technological scheme	Marking and linking to the schematic file	String + File	Yes	File, signature of QES
Technical	Basic fuel	Natural gas / Biogas / Biomass / Other	List	Yes	Applicant
Technical	Spare fuel	Fuel type(s)	List	Optional	Applicant
Power	Installed electrical power	MW (nominal)	Number	Yes	Data Sheet / Tests
Power	Installed heat output	MWt or Gcal/h	Number	Yes	Registration certificate
Effectiveness	Efficiency electric nominal	%	Number	Optional	Manufacturer's data
Effectiveness	Thermal Rated Efficiency	%	Number	Optional	Manufacturer's data
Effectiveness	Overall efficiency is nominal	%	Number	Optional	Manufacturer's data
Heat parameters	Coolant pressure/temperature	MPa/°C	Row	Optional	Applicant
Accumulation	The presence of storage tanks	Yes/No; volume, m³	List/Number	Optional	Applicant
Accounting for e-mail. Energy	Commercial metering unit electric. Energy	Type, Accuracy Class, Model	Row	Yes	Meter passport
Heat accounting	Heat energy metering unit	Type, model, class	Row	Yes	Meter passport
Fuel accounting	Gas/Fuel Meter	Type, range, calibration	Row	Yes	Verification documents
SCADA/ICS	Availability of telemetry	Yes/No; List of tags	Row	Optional	Applicant
Mode	Operating mode	Constant / Peak / Backup	List	Yes	Applicant
Joining	Voltage level	Kv	Number	Yes	Accession agreement
Permits/Licenses	NEURC license (if any)	No, date, line	Row	Optional	Register of licenses
Permits/Emissions	Emission permit	No, date, line	Row	Optional	Environment / EcoSystem
Commissioning	Reason for introduction	Certificate/Declaration: No, date	Row	Yes (for incumbents)	EDESSB

Equipment	Generator Manufacturer /Model	Unit data	Row	Yes	Registration certificate
Equipment	Serial numbers of the main equipment	Generator, engine, waste heat boiler, etc.	Row	Optional	Registration certificate
Indicators (design)	Annual supply of e-mail. Energy (Design)	MWh/year	Number	Yes (for new)	Project
Indicators (design)	Annual heat output (design)	Gcal/year or MWh/year	Number	Yes (for new)	Project
Efficiency (design)	Saving primary energy (design)	%	Number	Yes (for new)	Calculation according to the method
Indicators (actual)	Annual supply of e-mail. Energy (Actual)	MWh/year	Number	Yes (for incumbents)	Monitoring/reporting
Indicators (actual)	Annual heat output (fact)	Gcal/year or MWh/year	Number	Yes (for incumbents)	Monitoring/reporting
Efficiency (actual)	Saving primary energy (fact)	%	Number	Yes (for incumbents)	Calculation according to the method
Monitoring	How to submit reports	Manual / API	List	Yes	X
Monitoring	Technical details of integration	URL/API key/certificate	Row	Optional	X
Administrative data	Responsible for reporting	Name, position	Row	Yes	Applicant
Administrative data	Date of the last update of the record	DD.MM.YYYY YY YYY:XX	Date-time	Yes	X

Notes:

1. The mandatory individual fields depend on the status of the installation: **new/project** or **active**. For new ones, design indicators are mandatory; for existing ones, they are actual for the last 12 months.
2. Attached documents (diagrams, test reports, technical passports) are submitted in PDF format with the applicant's QES imposed.
3. The data to be published as public must not contain personal data of individuals or trade secrets; the volume and structure of public fields are determined by the administrator of the Register.

Annex 5 to the Procedure (as amended by the Resolution of the Cabinet of Ministers of Ukraine dated ___ _____ 202_ No. ____)

ICS Directories Cogeneration (codes and classifiers)

1. Types of cogeneration plants (KGU_TYPE)

Code	Name	Description / example
T01	Gas piston (GPU)	internal combustion engine + generator; heat from cooling and UTK
T02	Gas turbine (GTU)	Turbine + waste heat boiler
T03	Steam turbine (PTU)	Steam generation/extraction/back pressure
T04	Combined-cycle gas plant (CCGT)	GTU + waste heat boiler + vocational school
T05	ORC (Organic Rankine)	Low Potential Heat, ORC Turbine
T06	Micro-CHP	Microturbines/Micro Internal Combustion Engines
T07	CHP Fuel Cells	Solid polymers/etc. PE + heat recovery
T08	Waste heat recovery	Without add. Fuel; generation from WtH
T09	Biomass/Biogas CHP	Solid Fuel/Anaerobic Systems
T10	Other	Specify in the field "description"

2. Types of fuel (FUEL_TYPE)

Code	Name	Notes
P01	Natural gas	Including the CIS, methane
P02	Biogas	Polygon/digesters
P03	Solid biomass	Wood chips, pellets, agricultural waste
P04	Garbage gas	Landfill gas
P05	Coal	Stone/Brown
P06	Diesel/Fuel Oil	Reserve/Peak
P07	RDF/SRF	Waste as fuel
P08	Hydrogen	Clean/Blends
P09	LPG/LPG	Liquefied Gas
P10	Discharge heat	Fuel-free resource
P99	Other	Specify in the field "description"

3. Voltage levels (VOLTAGE_LEVEL)

Code	Level
V01	0.4 kV
V02	6 kV
V03	10 kV
V04	20 kV
V05	35 kV
V06	110 kV
V07	150 kV
V08	330 kV

4. Accuracy classes of electricity meters (METER_CLASS_E)

Code	Class
MC01	0,2S
MC02	0,5S
MC03	1,0

5. Types of Heat Energy Meters (HEAT_METER_TYPE)

Code	Type
HM01	Ultrasound
HM02	Vortex
HM03	Mechanical

6. Units of Measurement (UNITS)

Code	Unit	Denomination
U01	Electrical power	kW / MW
U02	Thermal power	Gcal/year/MWt
U03	Electric energy.	kWh / MWh
U04	Thermal energy	Gcal / MWh
U05	Fuel (gas)	yew. Nm^3
U06	Fuel (liquid)	t / kg / m^3
U07	Pressure	Mpa
U08	Temperature	°C
U09	Volume	m^3

7. Record statuses (RECORD_STATUS): **registered**, **qualified**, **suspended**, **cancelled**, **ceased**.

8. Operating modes (OP_MODE): **continuous**, **peak**, **reserve**.

9. Formats and control of fields (validation rules)

- **EIC code of** the join point: 16–21 characters, Latin uppercase letters/numbers; regex: ^[A-Z0-9]{16,21}$.
- **Efficiency** (efficiency, PEE): 0–100%; The PEE must be ≥ the thresholds according to the Methodology.
- **Capacities**: >0; upper limits — according to the data sheet; units — according to the UNITS directory.
- **Geocoordinates**: latitude −90.. +90; longitude −180.. +180 (WGS84).
- **Email/Phone**: RFC 5322 / E.164 format (e.g. +380XXXXXXXXX).
- **Files**: PDF/PNG/JPEG; size ≤ 50 MB; QES is required for PDF documents.

10. Directory of Network Operators (GRID_OPERATOR)

Types: TSO (NPC Ukrenergo), DSO (distribution system operators).
Fields: code (internal), name, EIC code, type (TSO/DSO), region, status (current/archive).
Source: synchronization with the official list (via Trembita or uploading CSV/JSON by the administrator of ICS Cogeneration). Updates — at least 1 time per quarter or by event.

11. Permits/Document Guides (PERMITS)

NEURC license: fields — No, date, term, link to the entry in the register; format No — ^[A-ZA-Ya0-9\-/]{3,30}$.
Emission permit: No, date, term, issuing authority; link to "EcoSystem" (if there is an API).
Commissioning (USESSB): document type — certificate/declaration; No, date; UUID of the USESSB record.

12. Principles of reference book maintenance

Versioning: Each change is labeled with a version label and a log (who/when/what).
Publicity: open directories (types, fuels, units) are published as open data on the data.gov.ua.
Backward compatibility: prohibition of "erasure" of historical values; instead of deletion, the status of "archive".